

EXHIBIT 1

**Tables 1-4 from
U.S. Appl. No. 09/874,475**

Table 1

Cells

| Cell | Receptor |
|------------------------|---|
| 5.25 | CXCR4, CD4, CCR5 (not expressed well) BONZO |
| 5.25.Luc4.M7 | CD4, CCR5, BONZO |
| HOS.CD4.CCR5 | CD4, CCR5 |
| HOS.CD4.CXCR4 | CD4, CXCR4 |
| HOS.CD4 | CD4, low level expression of CCR5 and CXCR4 |
| HOS HT4 R5 GFP wt | CD4, CXCR4, CCR5 |
| HOS.CD4.CCR5.GFP.M7#6* | CD4, CXCR4, CCR5 |
| P4.CCR5 | CD4, CXCR4, CCR5 |
| U87.CD4 | CD4 |
| U87.CD4 R5 | CD4, CCR5 |
| U87.CD4 X4 | CD4, CXCR4 |
| MT2 | CD4, CXCR4 |
| MT4 | CD4, CXCR4 |
| PM1 | CD4, CXCR4, CCR5 |
| CEM NKr CCR5 | CD4, CXCR4, CCR5 |

Table 2 Representative viruses and reagents

| Viruses | Envelope ^a | Source |
|--------------------------------|-----------------------|--------------------|
| 89.6, SF2 | R5-X4/SI/B | ARRRP ^b |
| 92BR014, 92US076 | R5-X4/SI/B | ARRRP |
| JR-CSF, 91US005 | R5/NSI/B | ARRRP |
| 91US054 | SI/B | ARRRP |
| NL43, MN, ELI | X4/B | ARRRP |
| 92HT599 | X4 | ARRRP |
| 92UG031 | R5/NSI/A | ARRRP (IN-HOUSE) |
| 92TH014, 92TH026 | R5/NSI/B | ARRRP (IN-HOUSE) |
| 92BR025, 93MW959 | R5/SI/C | ARRRP (IN-HOUSE) |
| 92UG035 | R5/NSI/D | ARRRP (IN-HOUSE) |
| 92TH022, 92TH023 | R5/NSI/E | ARRRP (IN-HOUSE) |
| 93BR020 | R5-X4/SI/F | ARRRP (IN-HOUSE) |
| Antibodies | Epitope | SOURCE |
| Mabs 2F5, 1577 | gp41 TM | ARRRP |
| Mabs IG1b12, 2G12, 17b, 48D | gp120 SU | ARRRP |
| Neutralization sera #2, HIV-IG | Polyclonal | ARRRP |
| Entry inhibitors | Target | Source |
| CD4-IG | gp120 SU | Genentech |
| CD4-IGG2 | gp120 SU | Adarc |
| SCD4 | Sigma | Progenics |
| T20 (DP178) | gp41 TM | Trimeris |
| Rantes, MIP1a/b | CCR5 | SIGMA/ARRRP |
| SDF1a/b | CXCR4 | SIGMA/ARRRP |
| AMD 3100 | CXCR4 | AnorMed |
| Dextran sulfate, Heparin | Non-specific | Sigma |

^aR5 (CCR5 co-receptor), X4 (CXCR4 co-receptor)

SI (syncytium inducing), NSI (non-syncytium inducing), A,B,C,D,E,F (envelope clade designation)

^bAIDS Research and Reference Reagent Program

Table 3

Primers Tested for the Amplification of HIV Envelope

RT PRIMERS

RT env_N3 5'-GGA GCA TTT ACA AGC AGC AAC ACA GC-3'
 RT env 9720 5'-TTC CAG TCA VAC CTC AGG TAC-3'
 RT env 9740 5'-AGA CCA ATG ACT TAY AAG G-3'

5' PCR PRIMERS

5'env 5'-GGG CTC GAG ACC GGT CAG TGG CAA TGA GAG TGA AG-3'
 5'env_Xho/Pin 5'-GGG CTC GAG ACC GGT GAG CAG AAG ACA GTG GCA ATG A-3'
 5'env_START 5'-GGG CTC GAG ACC GGT GAG CAG AAG ACA GTG GCA ATG -3'

3' PCR PRIMERS

3'env 5'-GGG TCT AGA ACG CGT TGC CAC CCA TCT TAT AGC AA-3'
 3'env_Xba/Mlu 5'-GGG TCT AGA ACG CGT CCA CTT GCC ACC CAT BTT ATA GC-3'
 3'env_STOP 5'-GGG TCT AGA ACG CGT CCA CTT GCC ACC CAT BTT A-3'
 3' delta CT 5'-GAT GGT CTA AGA CGC TGT TCA ATA TCC CTG CCT AAC TC-3'

All Experiments are located in Virologic Book number 0188

Table 4 (Panel 1)

| Anti-HIV Drugs | | | |
|---|--------------------------------------|----------------------|-------------------------------------|
| Drug/Compound | Generic Name | Trademark | Manufacturer |
| RT Inhibitors (NRTI, nucleotide analogs) | | | |
| AZT, ZDV | Zidovudine | Retrovir | Glaxo/Wellcome |
| 3TC | Lamivudine | Epivir | Glaxo/Wellcome |
| AZT + 3TC | | Combivir | Glaxo/Wellcome |
| d4T | Stavudine | Zerit | Bristol-Myers/Squibb |
| ddI | Didanosine | Videx | Bristol-Myers/Squibb |
| ddC | Zalcitabine | Hivid | Hoffman La Roche |
| 1592U89 | Abacavir | Ziagen | Glaxo/Wellcome |
| AZT + 3TC + 1592U89 | | Trizivir | Glaxo/Wellcome |
| (-)FTC (5-fluoro-3TC; Corviracil) | Emtricitabine | | Triangle Pharmaceuticals |
| (-)FTC + (+)FTC (50:50) | Racimir | | QuadPharma |
| DAPD (DXG active) | Amdoxovir | | Triangle Pharmaceuticals |
| F-ddA (2-fluoro-ddA) | Lodensine | | MedImmune Oncology (US Bioscience) |
| BCH-10652, dOTC (2-deoxy-3-oxa-4-thiocytidine) | | | BioChem Pharma, Inc. |
| D-d4FC | | | Triangle Pharmaceuticals (Schinazi) |
| RT Inhibitors (NRTI, nucleotide analogs) | | | |
| bis-POC PMPA (GS-4331) | Tenofovir | | Gilead Sciences |
| bis-POM PMEA (GS-840) | Adefovir dipivoxil | | Gilead Sciences |
| RT Inhibitors (NNRTI, non-nucleosides) | | | |
| BI-RG-587 | Nevirapine | Viramune | Boehringer/Ingelheim (Roxanne) |
| BHAP PNU-90152T | Delavirdine | Rescriptor | Pharmacia & Upjohn |
| DMP 266 (L-743,726) | Efavirenz | Sustiva | Dupont Pharmaceuticals (Avid) |
| MKC442 (Coactinon) | Emivirine | | Triangle/Mitsubishi Kasei |
| AG-1549 (S1153) (on hold) | Capravirine | | Agouron Pharmaceuticals |
| PNU-142721 | | | Pharmacia & Upjohn |
| DPC-961, -963, -083, -087 | | | DuPont Pharmaceuticals |
| SJ-3366 | Also entry inhibitor? | | Samjin Pharmaceuticals |
| BHAP PNU-87201 | Ateviridine | | Upjohn |
| GW420867X (quinoxaline) | (2 nd gen. HBY 097) | | Glaxo/Wellcome (Hoechst Bayer) |
| TMC 120 (R147681) | | | Tibotec |
| TMC 125 (R165335) | | | Tibotec |
| R86183 | tivirapine | | Janssen Pharmaceuticals |
| Calanolide A | | | Sarawak Medichem Pharmaceuticals |
| Protease Inhibitors (PRI) | | | |
| Ro 31-8959 | Saquinavir-(hgc) Saquinavir-(sgc) | Inivase Fortivase | Hoffman-La Roche |
| MK-639 (L-735,524) | Indinavir | Crixivan | Merck Research Laboratories |
| ABT-538 (A-84538) | Ritonavir | Norvir | Abbott Laboratories |
| AG1343 | Nelfinavir | Viracept | Agouron Pharmaceuticals |
| 141W94 (VX-478) | Amprenavir | Agenerase | Glaxo-Wellcome/Vertex |
| ABT-378/r | Lopinavir/ritonavir | Kaletra | Abbott Laboratories |
| BMS 232,632 (aza-peptide) | | | Bristol-Myers-Squibb |
| PNU-140690 | Tipranavir | | Pharmacia & Upjohn |
| DMP 450 (cyclic urea) | Mozenavir | | Triangle/Avid (ph I/II) |
| TMC 126 (Erickson's compound) | | | Tibotec |
| GW433908 (VX-175) | amprenavir pro-drug | | Glaxo/Wellcome/Vertex |
| L756,423 (on hold) | | | Merck |
| PD-178390 (dihydropyrone) | | | Parke Davis (Boehringer-Ingelheim) |
| ? new candidate | | | Roche |
| DPC 681 and 684 | | | DuPont Pharmaceuticals |
| AG-1776 (JE-2147 = KNI-764) | | | Agouron Pharmaceuticals |
| Envelope/Receptor Inhibitors | | | |
| T-20 (gp41) | Pentafuside | | Trimeris Pharmaceuticals |
| T-1249 (gp41) | | | Trimeris Pharmaceuticals |
| D-peptide inhibitor (gp41) small mol. | SCH-C | | Schering-Plough |
| AMD-3100 (CXCR4) | (bicyclam) | | AnorMED |
| AME-3664 (CXCR4) | (macrocyclam) | | AnorMED |
| ALX40-4C (CXCR4) | | | U. PA |
| FP21399 | | | Fuji Pharmaceuticals |
| PRO 542 (gp120) | CD4lgG2 | | Progenics Pharmaceuticals |
| PRO-140 (CCR5) | MAb CCR5 | | Progenics Pharmaceuticals |
| T-22 (CXCR4) | (peptide, 18-mer) | | |
| Met-SDF-1 (CXCR4) | | | |
| TAK 779 (CCR5 antagonist) | | | Takeda |
| AOP-Rantes (CCR5) | | | Gryphon Sciences |

Table 4 (Panel 2)

| | | | |
|--|------------------------------------|--|--------------------------------|
| Rantes 9-68 (CCR5) | | | |
| CCR5 antagonists | 4-(piperidin-1-yl) butane class | | Merck |
| α -Immunokine-NNS03 (CCR5, CXCR4) | α -cobratoxin | | PhytoMed Corp. |
| Integrase inhibitors | | | |
| AR-177 | Zintevir | | Aronex Pharmaceuticals |
| Diketo acids | | | Merck Research Laboratories |
| Nucleocapsid inhibitors | | | |
| RB 2121 | cyclic peptide p7 mimic | | (see PNAS 96:4886-4891 (1999)) |
| CI-1012 | | | Achelion Pharmaceuticals |
| RNAse H inhibitor | | | |
| SP1093V (BBNH Fe+3 derivative) | | | (Pamiak) |

FDA approved drugs are shown in boldface, red = discontinued development, blue = not sure about development status

Table 4 (Panel 3)

| Generic Name (abbreviation) | Brand Name | Firm | FDA Approval Date |
|--|-------------------|-------------------------|------------------------------|
| zidovudine, AZT | Retrovir | Glaxo Wellcome | March 87 |
| didanosine, ddI | Videx | Bristol Myers-Squibb | October 91 |
| zalcitabine, ddC | Hivid | Hoffman-La Roche | June 92 |
| stavudine, d4T | Zerit | Bristol Myers-Squibb | June 94 |
| lamivudine, 3TC | Epivir | Glaxo Wellcome | November 95 |
| saquinavir, SQV, hgc | Invirase | Hoffman-La Roche | December 95 |
| saquinavir, SQV, sgc | Fortovase | Hoffman-La Roche | November 97 |
| ritonavir, RTV | Norvir | Abbott Laboratories | March 96 |
| indinavir, IDV | Crixivan | Merck & Co., Inc. | March 96 |
| nevirapine, NVP | Viramune | Boehringer Ingelheim | June 96 |
| nelfinavir, NFV | Viracept | Agouron Pharmaceuticals | March 97 |
| delavirdine, DLV | Rescriptor | Pharmacia & Upjohn | April 97 |
| ZDV+3TC | Combivir | Glaxo Wellcome | September 97 |
| efavirenz, EFV | Sustiva | DuPont Pharmaceuticals | September 98 |
| abacavir, ABC | Ziagen | Glaxo Wellcome | February 99 |
| amprenavir | Agenerase | Glaxo Wellcome | April 99 |
| lopinavir/ritonavir | Kaletra | Abbott | September 2000 |
| ZDV+3TC+ABC | Trizivir | GlaxoSmithKline | November 2000 |